

Listing of Claims:

1. (Previously Presented) A method of controlling a dissolution rate of a bioactive agent, the method comprising:

identifying a target dissolution rate;

applying a first drop of solution carrying the bioactive agent at a first selected location on a delivery substrate; and

positioning a second drop of solution carrying the bioactive agent at a second selected location on the delivery substrate, wherein the location of the first drop and the location of the second drop are selected based on the target dissolution rate.

2. (Original) The method of claim 1, wherein the first drop and the second drop at least partially overlap.

3. (Previously Presented) The method of claim 1, wherein the first drop and the second drop are spaced sufficiently to avoid coalescing.

4. (Original) The method of claim 1, wherein applying the first drop of solution and positioning the second drop of solution includes heating solution carrying the bioactive agent with a thermal ejection element.

5. (Original) The method of claim 4, wherein the heated solution is applied via at least two nozzles sized to eject drops of solution having substantially the same volume.

6. (Original) The method of claim 1, wherein applying the first drop of solution and positioning the second drop of solution includes displacing the solution carrying the bioactive agent with a piezoelectric ejection element.

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7. (Original) The method of claim 6, wherein the displaced solution is applied via at least two nozzles sized to eject drops of solution having substantially the same volume.

8. (Previously Presented) The method of claim 1, further comprising positioning a plurality of drops of solution carrying the bioactive agent, each at a location selected based on the identified target dissolution rate.

9. (Original) The method of claim 8, wherein a standard deviation of distance between adjacent drops is less than approximately 15% of a mean distance between adjacent drops.

10. (Original) The method of claim 8, wherein a standard deviation of combined geometric surface area of overlapping drops is less than approximately 15% of a mean combined geometric surface area of overlapping drops.

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

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21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Previously Presented) A method of controlling a dissolution rate of a bioactive agent, the method comprising:

identifying a target dissolution rate;

applying a first drop of solution carrying the bioactive agent at a first location on a delivery substrate;

selecting a second location on the delivery substrate for placement of a second drop of solution carrying the bioactive agent from a plurality of possible second locations, the second location being selected in relation to the first location based on the identified target dissolution rate; and

positioning the second drop of solution at the selected second location on the delivery substrate.

30. (Previously Presented) The method of claim 29, wherein positioning the second drop effects a dot pattern with at least one dot at least partially overlapping with at least one other dot.

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31. (Previously Presented) The method of claim 29, wherein positioning the second drop effects a dot pattern with at least one of the dot fully overlapping with at least one other dot.

32. (Previously Presented) The method of claim 29, wherein positioning the second drop effects a dot pattern with each dot discretely spaced from all other dots.

33. (Previously Presented) The method of claim 29, wherein the delivery substrate includes an ingestible media.

34. (Withdrawn) A method of controlling a dissolution rate of a bioactive agent, the method comprising:

identifying a desired surface-to-mass ratio;

applying a first drop of solution carrying the bioactive agent at a first location on a delivery substrate;

selecting a second location on the delivery substrate for placement of a second drop of solution carrying the bioactive agent, the second location being selected to overlap the first location sufficiently to achieve the identified desired surface-to-mass ratio; and

positioning the second drop of solution at the selected second location on the delivery substrate to achieve a dot pattern having the identified desired surface-to-mass ratio.